35 USC 103(a)

Claims 1-10 have been rejected under 35 USC 103(a) over Suzuki et al. (US 5,965,858).

Suzuki et al. teaches a system promoting proper recycling of discarded articles so as to economize energy consumption, reduce wastes, and prevent environmental pollution.

Applicants invention is directed to a method of demanufacturing products so as to provide the greatest economic benefit by recovering the largest revenue. Based upon current market conditions, the current re-sale value of a given product is compared to the value of the parts and commodities (e.g. precious metals) contained within the product minus the labor expense to remove the parts and commodities, and a determination is made to either offer the entire product for sale, or to demanufacture the product to an optimum level and offer the parts and commodities contained therein for sale. If it is determined that demanufacturing will provide the greatest economic benefit, the optimum level of disassembly is determined so as to recover the largest revenue.

An important feature of the present invention is that of determining the _optimum_ level of demanufacturing to recover the largest revenue possible for a given product. This optimum level may include _no_ demanufacturing - i.e. sell the entire product with no disassembly, and no parts or commodities having been

removed.

Independent Claim 1 has been amended to more positively set forth this important feature of optimizing demanufacturing to recover the largest revenue. Support for this amendment is found in the Technical Field of Applicant's disclosure on page 1, lines 5-7, Applicant's Best Mode for Carrying Out the Invention on page 10, lines 6-9 and lines 16-22, and Abstract of Applicant's disclosure on page 17, lines 5-9. Entry of this amendment is urged.

Suzuki et al. does not disclose basing a decision as to whether a given discarded article should be sold in an intact state or disassembled and sold for part and/or commodity value upon recovering the largest revenue, but rather bases this decision upon whether an article may be restored as set forth in column 10, lines 59-60, where it is stated that "it is first determined whether the discarded television can be restored as a useful article", and if not, "the discarded article of concern is transferred to other recycle processing than the article restoration processing" as set forth in column 11, lines 8-10. In contrast, Applicant's Claim 1, as amended above, requires determining an optimum level of demanufacturing, and in response to said determination, either offering the product for resale, or removing parts which were determined to be removed, if any and offering the parts for resale, separating any remaining parts into commodities, and offering the commodities for resale. Supporting description is found in Applicant's Specification at page 10, lines 16-18 of Applicant's Best Mode for Carrying Out

the Invention states that "if the whole product value is greater than both the highest commodity and highest parts value, then a determination is made to sell the whole product" to recover the largest revenue. Nowhere does Suzuki et al. show this step of determining an optimum level of demanufacturing, and in response to said determination, either offering the product for resale, or removing parts which were determined to be removed, if any and offering the parts for resale, separating any remaining parts into commodities, and offering the commodities for resale.

Suzuki et al. also does not disclose optimizing demanufacturing to recover the largest revenue, but rather bases demanufacturing decisions on "When the disassembling/separating cost is lower than the purchase cost, it is then determined that the part concerned is to be disassembled and separated as the reuse-destined part." as set forth in column 41, lines 39-42 of Suzuki et al. In other words, Suzuki et al. only considers whether the cost of removing a given part from a discarded article may be recovered, and does not seek to optimize demanufacturing to recover the largest revenue. Applicant's disclosure, however, does seek to optimize demanufacturing to recover the largest revenue, as set forth in Applicant's Claim 1, as amended above, which requires determining an optimum level of demanufacturing, and in response to said determination, either offering the product for resale, or removing parts which were determined to be removed, if any and offering the parts for resale, separating any remaining parts into commodities, and offering the commodities for resale. Supporting description is found in Applicant's Specification at page 10, lines 19-22 of

Applicant's Best Mode for Carrying Out the Invention where it is stated that "further comparisons are made for each level of demanufacturing to determine which level results in the greatest difference between parts minus part removal labor and commodities minus commodity labor" <u>so as to recover the largest revenue</u>. Nowhere does Suzuki et al. show this step of determining an optimum level of demanufacturing, and in response to said determination, either offering the product for resale, or removing parts which were determined to be removed, if any and offering the parts for resale, separating any remaining parts into commodities, and offering the commodities for resale.

Furthermore, in column 11, lines 44-45 of Suzuki et al., a "decision is made as to whether the parts or the assemblies can be <u>reused</u>" (emphasis added), rather than making a decision based on recovering the largest revenue as set forth in Applicant's Claim 1, as amended above, which requires determining an optimum level of demanufacturing, and in response to said determination, either offering the product for resale, or removing parts which were determined to be removed, if any and offering the parts for resale, separating any remaining parts into commodities, and offering the commodities for resale. Supporting description is found in Applicant's Specification wherein "a major plastic part is separated which may increase the commodity value of the remainder by separating out the plastic" as set forth in Applicant's Best Mode for Carrying Out the Invention on page 9, lines 12-14.

Applicant's Claim 1 also requires, in the last step,

separating any <u>remaining parts</u> into commodities and offering these commodities for resale. The point at which to stop removing parts for part resale and start separating the remaining parts for commodity resale is determined in the previous determination step. The determination is further explained in Applicant's Specification at page 10, line 16-22 involving removal labor and commodity labor. Suzuki et al. does not describe these steps of stopping parts removal for resale and separating remaining parts into commodities based on the determining step involving removal labor and commodity labor.

Based on the above arguments, Claim 1 is allowable over Suzuki et al., and such allowance is respectfully requested.

Dependent Claims 2-5 depend, directly or indirectly, from amended independent allowable Claim 1, and are therefore also allowable.

In addition, as the Examiner has pointed out, Claim 5 recites a "spreadsheet model", however, Figures 26 and 28-30 of Suzuki et al. referred to by the Examiner appear to depict the format of database records rather than a spreadsheet as alleged by the Examiner. Applicants maintain that Claim 5 is therefore also allowable for this reason.

Independent Claims 6, 7, 8, and 9 have been amended in a manner similar to independent Claim 1 to more positively set forth the important feature of optimizing demanufacturing to recover the largest revenue. Support for these amendments may

also be found in the Technical Field of Applicant's disclosure on page 1, lines 5-7, Applicant's Best Mode for Carrying Out the Invention on page 10, lines 6-9 and lines 16-22, and Abstract of Applicant's disclosure on page 17, lines 5-9.

Dependent Claim 10 depends from amended independent allowable Claim 9, and is therefore also allowable.

The Application is deemed in condition for allowance and such action by the Examiner is urged. Should differences remain, however, which do not place one/more of the remaining claims in condition for allowance, the Examiner is requested to phone the undersigned at the number provided below for the purpose of providing constructive assistance and suggestions in accordance with M.P.E.P. Sections 707.02(j) and 707.03 in order that allowable claims can be presented, thereby placing the Application in condition for allowance without further proceedings being necessary.

Respectfully Submitted,

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Telephone No.: (607) 755-6565
Fax No.: (607) 755-3250

By: John Pivnichny
John R. Pivnichny
Registration No. 43,001

IN THE CLAIMS

Claims 1, 6, 7, 8, and 9 have been amended as follows. All claims are presented hereinbelow for convenience.

1   1. [Amended] A method of _optimally_ demanufacturing a product _to_
2   _provide greatest economic benefit_, comprising the steps of:

3   providing a product for demanufacturing, said product having a
4   plurality of parts, wherein each of said parts comprises one or
5   more commodities;

6   collecting a resale price for said product;

7   collecting one or more resale prices for one or more of said
8   parts respectively;

9   collecting one or more commodity prices for one or more of said
10   commodities respectively;

11   determining the labor expense to remove said each of said parts
12   from said product;

13   entering said resale prices, said commodity prices, and said

14   labor expense into a computer model;

15   executing said computer model to make a determination of which of

16   said parts to be removed from said product <u>and an optimum level</u>

17   <u>of demanufacturing to provide greatest economic benefit by</u>

18   <u>recovering largest revenue</u>; and

19   in response to said determination, either offering said product

20   for resale, or removing said parts which were determined to be

21   removed, if any and offering said parts for resale, separating

22   any remaining parts into said commodities, and offering said

23   commodities for resale.

1   2. The method of claim 1, wherein said resale prices, said

2   commodity prices, and said labor expense are provided from a

3   database.

1   3. The method of claim 2, wherein said database is periodically

2   updated.

1   4. The method of claim 3, wherein said database is updated

2   monthly.

1   5. The method of claim 1, wherein said computer model is a

2   spreadsheet model.

1   6. [Amended] A method of determining the <u>optimal</u> extent to

2   demanufacture a product <u>to provide greatest economic benefit</u>,

3   comprising the steps of:

4   providing a product for demanufacturing, said product having a
5   plurality of parts, wherein each of said parts comprises one or
6   more commodities;

7   collecting one or more resale prices for one or more of said
8   parts respectively;

9   collecting one or more commodity prices for one or more of said
10   commodities respectively;

11   determining the labor expense to remove said each of said parts
12   from said product;

13   entering said resale prices, said commodity prices, and said
14   labor expense into a spreadsheet model; and

15   executing said spreadsheet model to [decide] optimally determine
16   which of said parts to remove from said product to provide
17   greatest economic benefit by recovering largest revenue.

1   7. [Amended] A method of determining the optimal extent to
2   demanufacture a product to provide greatest economic benefit,
3   comprising the steps of:

4   providing a product for demanufacturing, said product having a
5   plurality of parts, wherein each of said parts comprises one or
6   more commodities;

7 collecting a resale price for said product;

8 collecting one or more resale prices for one or more of said
9 parts respectively;

10 collecting one or more commodity prices for one or more of said
11 commodities respectively;

12 determining the labor expense to remove said each of said parts
13 from said product;

14 entering said resale prices, said commodity prices, and said
15 labor expense into a spreadsheet model; and

16 executing said spreadsheet model to [decide] <u>optimally determine</u>
17 which of said parts to remove from said product or whether to
18 offer said product for resale <u>to provide greatest economic</u>
19 <u>benefit by recovering largest revenue</u>.

1 8. [Amended] A computer system for determining the <u>optimal</u> extent
2 to demanufacture a product <u>to provide greatest economic benefit,</u>
3 <u>said product</u> having a plurality of parts wherein each of said
4 parts comprises one or more commodities, said system comprising:

5 means for collecting one or more resale prices for one or more of
6 said parts respectively;

7 means for collecting one or more commodity prices for one or more
8 of said commodities respectively;

9   means for determining the labor expense to remove said each of

10   said parts from said product;

11   means for entering said resale prices, said commodity prices, and

12   said labor expense into a spreadsheet model; and

13   means for executing said spreadsheet model to [decide] <u>optimally</u>

14   <u>determine</u> which of said parts to remove from said product <u>to</u>

15   <u>provide greatest economic benefit by recovering largest revenue</u>.

1   9. [Amended] A computer program product for instructing a

2   processor to determine the <u>optimal</u> extent to demanufacture a

3   product <u>to provide greatest economic benefit, said product</u> having

4   a plurality of parts, wherein each of said parts comprises one or

5   more commodities, said computer program product comprising:

6   a computer readable medium;

7   first computer instruction means for collecting a resale price

8   for said product;

9   second computer instruction means for collecting one or more

10   resale prices for one or more of said parts respectively;

11   third computer instruction means for collecting one or more

12   commodity prices for one or more of said commodities

13   respectively;

14   fourth computer instruction means for determining the labor

15   expense to remove said each of said parts from said product;

16   fifth computer instruction means for entering said resale prices,

17   said commodity prices, and said labor expense into a computer

18   model; and

19   sixth computer instruction means for executing said computer

20   model to make [a] an optimal determination of whether to sell

21   said product, or whether to remove and sell one or more of said

22   parts from said product to provide greatest economic benefit by

23   recovering largest revenue; and wherein

24   all of said computer instruction means are recorded on said

25   medium.

1   10. The computer program product of claim 9, further comprising a

2   database comprising said resale prices, said commodity prices,

3   and said labor expense, and wherein said database is recorded on

4   said medium.